

What is claimed is:

1. A data structure residing on a computer-readable medium for providing tool design and instructions in a dynamic manufacturing environment, the data structure comprising:

5 a plurality of objects for abstracting tool resources, each object represents all changes that relate to one of a tool or a part of a tool,  
wherein instances of the objects are generated for associated instructions for tool usage in the manufacturing environment, and the instances are based on product information.

10 2. The data structure of Claim 1, wherein the product information includes information identifying configuration of the product.

3. The data structure of Claim 2, wherein the information identifying configuration of the product includes product option information.

4. The data structure of Claim 2, wherein the product information includes definition of a functional deliverable of the product.

15 5 The data structure of Claim 4, wherein the functional deliverable of the product includes production line number where the object applies.

6. The data structure of Claim 1, wherein an instance of the object includes version information.

20 7. A computer-program product residing on a computer-readable medium for performing a method of generating one or more installation instructions, the method comprising:

entering a definition of a functional deliverable of the product and information identifying configuration of the product at the input device of the operator computer system; and

25 generating one or more installation instructions,  
wherein at least one of the generated one or more installation instructions includes one or more instances of one of a plurality of tool resource objects, the plurality of tool resource objects being abstractions of tool resources, each tool resource object represents all changes that relate to one of a tool or a part  
30 of a tool,

wherein the one or more instances are based on product information.

8. The computer-program product of Claim 7, wherein the product information includes information identifying configuration of the product.

9. The computer-program product of Claim 8, wherein the information identifying configuration of the product includes product option information.

5 10. The computer-program product of Claim 7, wherein the product information includes definition of a functional deliverable of the product.

11. The computer-program product of Claim 10, wherein the functional deliverable of the product includes production line number where the object applies.

10 12. A computer-program product residing on a computer-readable medium for performing generation of one or more installation instructions, the computer-program product comprising:

means for entering a definition of a functional deliverable of the product and information identifying configuration of the product at the input device of the operator computer system; and

15 means for generating one or more installation instructions, wherein at least one of the generated one or more installation instructions includes one or more instances of one of a plurality of tool resource objects, the plurality of tool resource objects being abstractions of tool resources, each tool resource object represents all changes that relate to one of a tool or a part

20 of a tool, wherein the one or more instances are based on product information.

13. The computer-program product of Claim 12, wherein the product information includes information identifying configuration of the product.

25 14. The computer-program product of Claim 13, wherein the information identifying configuration of the product includes product option information.

15. The computer-program product of Claim 12, wherein the product information includes definition of a functional deliverable of the product.

30 16. The computer-program product of Claim 15, wherein the functional deliverable of the product includes production line number where the object applies.



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